

CSC Adopted: October 2001 , CSC Revised: _____**Class Title: Civil Engineer I****BRIEF DESCRIPTION OF THE CLASSIFICATION:**

Administers and designs engineering and construction projects. Manages construction projects. Maintains structural condition information. Provides customer assistance. May supervise personnel.

ESSENTIAL FUNCTIONS:

This information is intended to be descriptive of the key responsibilities of the classification. The following examples do not identify all duties performed by any single incumbent. Specific requirements of individual positions are described in the Job Description.

Physical Strength Code		ESSENTIAL FUNCTIONS
1	L	Administers and designs engineering and construction projects by preparing proposal requests, preparing and reviewing construction plans and specifications, negotiating design and construction costs, receiving connection fees for new construction, drafting financial documents, providing information required for design, making recommendations if necessary, ensuring codes and standards are met, determining engineering consultants, negotiating consultant's scope of work and fees, reviewing consultant presentations, preparing records, assisting with field investigations, reviewing and approving invoices and approving the final project.
2	L	Manages construction projects by monitoring assigned projects during construction phase, assisting in the review and processing of construction material submissions, assisting in the review of construction field changes and changing orders for compliance with design intent.
3	L	Maintains structural condition information by updating computer databases and maps, compiling information and preparing reports.
4	L	Provides customer assistance by answering questions, investigating problems in the field, analyzing situations and providing solutions.
5	L	May supervise personnel by scheduling and assigning work duties, evaluating job performance, providing assistance and advice, researching and developing information for budgetary considerations, utilizing software and training others in these applications.

CSC Adopted: October 2001 , CSC Revised: _____**CLASS REQUIREMENTS:**

CLASS REQUIREMENTS	
Formal Education / Knowledge	Work requires broad knowledge in a general professional or technical field. Knowledge is normally acquired through four years of college resulting in a Bachelor's degree or equivalent.
Experience	Six months
Certifications and Other Requirements	Valid Driver's License
Reading	Work requires the ability to read plans, engineering reports, contracts, documents, memorandum, and general correspondence.
Math	Work requires the ability to perform load capacity ratings, cost estimates and general math calculations such as addition, subtraction, multiplication and division, as well as geometry.
Writing	Work requires the ability to write letters, reports, plans, documents and general correspondence.
Managerial	Managerial responsibilities include coordinating, performing, and reviewing designs of bridges, parking areas, waterfront structures and public buildings.
Budget Responsibility	Prepares documents and does research to justify language used in documents for a unit of a department and may recommend budget allocations.
Supervisory / Organizational Control	Work requires assigning, scheduling and overseeing the quality of work.
Complexity	Work is governed by broad instructions, objectives and policies. Work requires the exercise of considerable initiative and independent analytical and evaluative judgment.
Interpersonal / Human Relations Skills	Contacts others within the organization. These contacts may involve similar work units or departments within the City which may be involved in decision making or providing approval or decision making authority for purchases or projects. Works with individuals outside the City who may belong to professional or peer organizations. Working with various state and federal agencies may also be required. Vendors and suppliers may also be called upon for information on purchases, supplies or products. Meetings and discussions may be conducted with customers, brokers and sales representatives.

CSC Adopted: **October 2001** , CSC Revised: _____**OVERALL PHYSICAL STRENGTH DEMANDS:**

Sedentary	Light X	Medium	Heavy	Very Heavy
S = Sedentary Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time	L = Light Exerting up to 20 lbs. occasionally, 10 lbs. frequently, or negligible amounts constantly OR requires walking or standing to a significant degree.	M = Medium Exerting 20-50 lbs. occasionally, 10-25 lbs. frequently, or up to 10 lbs. constantly.	H = Heavy Exerting 50-100 lbs. occasionally, 25-50 lbs. frequently, or up to 10-20 lbs. constantly.	VH = Very Heavy Exerting over 100 lbs. occasionally, 50-100 lbs. frequently, or up to 20-50 lbs. constantly.

PHYSICAL DEMANDS:

C = Continuously 2/3 or more of the time.	F = Frequently From 1/3 to 2/3 of the time.	O = Occasionally Up to 1/3 of the time.	R = Rarely Less than 1 hour per week.	N = Never Never occurs.
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This is a description of the way the job is currently performed; it does not address the potential for accommodation.

PHYSICAL DEMANDS	FREQUENCY CODE	DESCRIPTION
Standing	F	Surveying structures
Sitting	F	Computer, desk work, driving
Walking	F	Inter-office, investigating structures, meetings,
Lifting	O	Reports, designs, review specifications, supplies
Carrying	O	Reports, designs, review specifications, supplies
Pushing/Pulling	O	File cabinet drawers, doors
Reaching	O	Reports, drawings, documents, telephone
Handling	O	Reports, drawings, documents
Fine Dexterity	F	Computer keyboard, writing, telephone keypad
Kneeling	O	Retrieving structure drawings
Crouching	O	Retrieving and reviewing structure drawings
Crawling	O	Investigating confined areas
Bending	O	Investigate / survey structures
Twisting	O	Investigate / survey structures
Climbing	O	Ladders, truck lifts, piers
Balancing	R	On ladders, truck lifts, piers
Vision	C	Computer monitor, reading, investigations, surveying
Hearing	C	Communicating with personnel and general public
Talking	F	Communicating with personnel and general public
Foot Controls	O	Driving
Other (specify)	N	

CSC Adopted: **October 2001** , CSC Revised: _____**MACHINES, TOOLS, EQUIPMENT, AND WORK AIDS:**

Hammer, tape measure, rigging rope, ladders, bucket trucks, truck lifts, cameras, cullers, computer, standard Microsoft Windows and Office software, Internet

ENVIRONMENTAL FACTORS:

D = Daily	W = Several Times Per Week	M = Several Times Per Month	S = Seasonally	N = Never
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HEALTH AND SAFETY		ENVIRONMENTAL FACTORS		PRIMARY WORK LOCATION	
Mechanical Hazards	N	Dirt and Dust	S	Office Environment	X
Chemical Hazards	N	Extreme Temperatures	S	Warehouse	--
Electrical Hazards	N	Noise and Vibration	N	Shop	--
Fire Hazards	N	Fumes and Odors	N	Vehicle	--
Explosives	N	Wetness/Humidity	M	Outdoors	--
Communicable Diseases	N	Darkness or Poor Lighting	S	Other (see 2 below)	--
Physical Danger or Abuse	N				
Other (see 1 below)	N				

(1)

(2)

PROTECTIVE EQUIPMENT REQUIRED:

Hard hat, steel toe shoes, protective eye glasses

NON-PHYSICAL DEMANDS:

C = Continuously 2/3 or more of the time.	F = Frequently From 1/3 to 2/3 of the time.	O = Occasionally Up to 1/3 of the time.	R = Rarely Less than 1 hour per week.	N = Never Never occurs.
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NON-PHYSICAL DEMANDS	
Time Pressures	O
Emergency Situations	R
Frequent Change of Tasks	O
Irregular Work Schedule/Overtime	R
Performing Multiple Tasks Simultaneously	O
Working Closely with Others as Part of a Team	F
Tedious or Exacting Work	O
Noisy/Distracting Environment	F
Other (see 3 below)	N

(3)